ANALYZING BROADBAND ISSUES FOR IMPROVED BROADBAND SERVICES:
Discussion Topics

Charles R. McClure, PhD, cmcclure@lis.fsu.edu
Director, Information Institute, Florida State University http://www.ii.fsu.edu/
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INTRODUCTION

The purpose of this break-out session is to provide attendees with an opportunity to identify and discuss a number of topics that affect successful access to, deployment of, and use of broadband both in a public library setting and in the community. Each group may select either "Scenario 1" or "Scenario 2" as a basis for discussion. These scenarios are intended only to be suggestive of the broadband situation in that type of library – not a comprehensive description.

Each group was given a choice of 2 scenarios. All groups chose the same scenario and below are the compiled answers from the groups.

SCENARIO 2 : RURAL PUBLIC LIBRARY

Rural Public Library (RPL) is a single outlet library serving a small, rural community of about 10,000 residents. RPL is funded through property taxes, with budgets determined annually by county commissioners based on total funding available and weighing of each county department's needs against each other. RPL's budget is fairly small, with limited support for technology. RPL has three staff members in total, a director and two paraprofessionals, none of whom have significant technology experience or expertise; RPL staff members primarily learn about technology "on the job" as they go along.

RPL has a technology plan in order to receive E-Rate discounts, but that plan is not aligned with any strategic plan and is written following a state-provided formula/template. RPL has four computers for public use and one for staff. RPL has DSL Internet at ISP-advertised speed of 1.544 Mbps. This connection is split among the staff and public computers and used to support RPL's wireless Internet, with additional degradation of speed between the front door and workstation due to the RPL firewall and Internet filter, so speeds at the workstation are nowhere near 1.544 Mbps downstream.

Local government agencies send people to RPL to use the computers to fill out e-government forms and applications, and RPL staff offer one-on-one as-needed assistance to users with computer, e-government, and job seeking tasks as best they can. RPL does not offer formal technology classes or e-government services/programs. All programs offered at RPL do not require or utilize technology in any way, such as children's story hour and weekly book club.

RPL does not have the resources (manpower, knowledge, or funding) to support a user survey, but they do have a comment box where users provide feedback on library services and programs. Lately, many comments have included requests for more computers, faster Internet, and computer/technology training classes.

Despite limited funding and support, RPL tries to be responsive to user needs and requests, and wants to keep its users happy. RPL staff would like to upgrade the Internet

connection, but when they have broached the subject of additional funding to support high-speed broadband Internet at RPL, county commissioners have been split over whether or not to support such funding. The commissioners do not agree on the role of broadband for their rural community, and not all see the importance of high-speed broadband for a rural community.

Discussion Questions   **Legend**
Scenario 2: <u>Rural</u> Public Library

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1. What are the first steps for RPL to begin drafting a more detailed technology plan that includes a more detailed role for broadband?

Need an assessment of what they have; use Tech Atlas through Web-junction; ask users for what they want/need verbally; could run a focus group; is the Library using technology in their future? Do speed tests; diagnostics and research into new technology

Bring in network consultant. Diagnostics and assessments.

a. first measure what they have; do a network and workstation diagnosis
b. survey users to see how they use and want to use the computers
c. get together a community stakeholder meeting to see what needs are and ways to collaborate

Involve the commissioners
Do a needs assessment
Use Survey Monkey
What are schools doing
Recruit someone who knows how broadband can help them – local ISP volunteer?
Look at a broad variety of libs are doing
Look at Webjunction tech plan

Local assessment or have ENA come in and do an assessment. Basic training on their own (Library Staff) before doing broadband. Determine what needs are to educate the Commissioners. Determine what else is available in the community.

Work with county govt to create a focus group who will look at the needs of broadband and the role in the community. Possibility of grants from Community Foundation for funding IT support. Role of broadband in a bigger group. Raising community expectations and information. Getting an informed public.

Assess community needs.
Find partners – local government, schools, etc.

Seek outside funding sources.
Find volunteers with tech knowledge to cover day to day usage.
Contact a nearby community college to find people with tech experience.

- Summary from suggestion box along with needs of community
- Talking with county commissioners about county broadband needs
- Talk to schools and other agencies within the community to determine needs and resources
- Go to webjunction and techatlas
- Review the State requirements for planning and make it unique for your community
- Needs assessment

The group felt like a 5 year technology plan is too long unless you are continually are evaluating and making changes. You should not wait until year 4 to begin thinking about revising the plan. We really felt like we should do a 3 year. Decide who are the stakeholders and put together a planning team. It is a good idea to try to get a person from each of the stakeholder groups – the board, a staff member, a patron, the IT person, local businesses. The schools are becoming more important to the library's technology plan. Try to get them involved so you at least know what they have and what they need.

2. What are some strategies for RPL to improve the connection speeds at the computer workstations?

Cabling and firewall and switches check/updating

Check software settings; how often are updates and scans happening; prefer not scheduled during open hours.
Need computers and cables less than 3 years old.
Check firewall and hardware usage.

a. upgrade network cabling
b. update workstations
c. update switches
d. increase broadband
e. investigate broadband shaping

Get a realistic view of what the actual speeds are withinn their network
Review switches, cabling, hubs

Speed test first then investigate grants, donations, other funding sources to update computers and other structure equipment. Investigate are companies/schools/organizations that can help them plan in all aspects. Investigate what they are getting from their service provider and see if something better is available from them or other options. Investigate their firewall.

Notes from morning session...

Internal network assessment
Assess cabling and need for updates

Check firewall for updates and security
Assess work stations and public computers for outdated hardware, software and applications

- Inventory of equipment and speed – Self diagnostics
- Show the community need
- Person of expertise to evaluate the deficiencies and share with commissioners the infrastructure need – with a budget
- Show the economic development within the community

Onsite test – find out where the problems are. Turn off automatic updates or schedule them for times that the library is not open. Evaluate the hardware and consider firewall, hubs, filter, switches, etc. Check who is using our wireless network.

3. How can RPL demonstrate the value of broadband in general and broadband at the library in particular to county commissioners to get buy-in for increasing the Internet connection speed at RPL?

Serve more people with faster connections; how many folks are using it now; put seatbelts on the chair to make their point; keep track of how many folks wait for computers; how many other government agencies send people to Library to use their computers. Grants possible through better/faster computer services? E-forms for County Government? Why should the public library care if the County Commissioners don't care? Push this as an economic development tool.

Use comments from patrons to support their request / demands for faster uploads.
Increased use of staff from other agencies, specific numbers of use from them with frequency.
Government web use for tax filing, job filing, unemployment, sex offenders site.
Create collaborative networks to bring life-saving technology into community.
Invite commissioner to meeting to use public access, a show and tell sort of event; let them see reality.

a. find out if the commissioners have grandchildren!
b. show up at their meetings with stats on use
c. provide economic development impact
d. find out what other county agencies are sending people to library to do things and show the need county-wide
e. invite commissioners to visit library during peak times

Survey results
Stats on helping people with Inet services
Draft for public comments
Look at similar community and compare what they have versus what you have
See what school students are expected to know and assist with that

Have their users communicate with the Commissioners. Get members of the Chamber of Commerce and other business leaders to express the need. Also get other non-profits to speak to the need. Also the school to back up the education of the students. Make the argument apply to

the Commissioners duties/job. Communicate to your community. Get statistics. Appeal to people like 4-h extension agents and how it could be used.

Talk to local agencies and show what benefit the broadband can bring to the community.

List all of the uses for free public computers in the community
Place a dollar value on each computer use such as unemployment claims, job training, etc

- Greater access for the community to personal needs and eliminates the need for the patrons to drive elsewhere

4. Is it a viable option for RPL to work with other anchor institutions in their community to share/upgrade broadband?
     a. If so, what are some strategies for enacting this?

Share costs of upgrading speed with other agencies such as Schools; struggling rural hospital could perhaps be a great partner.

Local government agencies refer public to library for e-gov documentation. Partnering with agencies,

- Research what providers are in community and see if anchor institutions can merge and get better deals

Work with school/city/other not-for-profits/hospitals (then you will get CC on board)

Yes, communicate.

Yes, strategies include working with the govt and other

Yes, it's always an option to grow together. Perhaps a larger group of corporate and government users could combine efforts to get the best broadband deal.

- Negotiation of institutions to get a better deal

     b. If not, why not?
- If do this, then other agencies may suck bandwidth
- may be many factions in the community who are literally fighting over opportunity to get the deal and creates bad relationships

- Shaky service, reliability of internet, filters, IT support not part of our staff and hard to locate, communication between groups

5. How does the library determine "how much" bandwidth is needed "at the front door" in and at individual workstations? You never have enough; demand increases as the sun rises.

See answers in number 1

Find out what users are doing at the various workstations. Do a user study & research what is needed to provide speed needed for activities. Look at wireless use in parking lot and in the building. Monitor usage.

Look at research from above to determine what your uses are and determine need from that. If response time is slower than home PC, then it's not enough

Do a diagnostic test. Also have someone like ENA come in and advise. Determine what it will be used for.

Find what they want to do, meet with providers and do diagnostics to find out what is needed and what they currently have. This is not a number... it is determining what you want to use it for and whether or not current needs are met.

What is an average user? Who needs what type of computer access? Does the community have other sources for high speed connections?

- See current use and individual workstation speeds
- Determine optimum workstation need and the number of workstations to determine the bandwidth need

You guess. Look at our peak performance to help evaluate. No matter how much you think you need, it is not enough. Get as much as you can afford.

6. What areas of staff training for deploying and using new broadband-based services are likely to be needed for UPL? Community college technology classes.

Workshops; another chance to work with agencies in question number 4; State Library training

Recorded training. Community College. High school class training.

Ex: gateway training for public libraries. Staff training on what applications are being added to the broadband services

Network
Software applications

- Basic training and build the train the trainer model

7. What are the most important community or library factors that should be considered as the library develops its broadband plan?

FUNDING! Cabling. Training of staff

Collaboration with anchors seems to be the most effective way to prove need.

Increase community awareness through service/community group contacts, ie quilt clubs, church groups, service organization.

Needs of community, what application are going to be used, staff utility and how to expand what the staff is able to accomplish, cooperatives between community groups, costs

- Cost
- Space
- User needs
- Economic Impact

8. Where would you go, who would you ask, and what specific type of assistance would you need in developing your technology/broadband plan?

Call speaker for advice! Call the State Library for assistance.

Recommend Tech Atlas and WebJunction, ALA. Call The State Library. :)
We think it comes down to how relevant you can make your library to the community's needs.

- Financial assistance: granting resources, community foundation
- Schools and other institutions that need the same resources (hospital etc)
- Service providers
- ISL – support and needs assessment
- Community groups and community input

- State Librar
- ENA – ISP
- Technology person

*Additional notes: we feel like videoconferencing is going to become more and more important. Start to offer videoconferencing to the general public – not just for library staff.